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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,004	07/31/2003	Thomas Hackl	037068.52641US	9537

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CROWELL & MORING LLP
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EXAMINER

KRAMER, DEVON C

ART UNIT	PAPER NUMBER
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3683

MAIL DATE	DELIVERY MODE
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05/07/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/631,004	HACKL, THOMAS	
	Examiner	Art Unit	
	Devon C. Kramer	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-9 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2 5-9 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

- 1) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 2) Claims 1, 2, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seto (2002/0152015) in view of Chakraborty et al (5839534).

In re claim 1, Seto provides a system capable of controlling brakes of a commercial vehicle, comprising: at least one of an adaptive distance regulation and driving speed device (figure 1) which modulates an urgency signal based upon a hazard variable (paragraph 31 and 32, step 006); an electronically controlled brake system (5) designed to distribute a desired amount of braking force to a friction brake system and a retarding brake (6); and wherein the electronically controlled brake system distributes the desired amount of braking force to the friction brake system and the retarding brake based upon the urgency signal. (Paragraph 31)

Seto lacks the teaching of an active retarding brake.

Chakraborty teaches the use of retarder in a similar system to that of Seto, but Chakraborty teaches that electric and hydraulic retarders are capable of being substituted for an engine brake. (Col. 7 lines 28-31)

It would have been obvious to one of ordinary skill in the art at the time of the invention to have substituted the retarder of Seto with an active retarder as taught by Chakraborty merely as an alternate means of providing a retarding braking force to the vehicle, and also to provide a retard a vehicle in which engine braking does not provide sufficient retarding force.

In re claim 2, see step 002 of Seto.

In re claim 9, Seto teaches a method for controlling brakes, capable of use on a commercial vehicle, comprising: modulating an urgency signal based upon a hazard variable (S002) via at least one of an adaptive distance regulation and driving speed device (see abstract); distributing a desired amount of braking force to the friction brakes and a retarding brake as a function of the urgency signal using an electronically control brake system (s007).

Seto lacks the teaching of an active retarding brake.

Chakraborty teaches the use of retarder in a similar system to that of Seto, but Chakraborty teaches that electric and hydraulic retarders are capable of being substituted for an engine brake. (Col. 7 lines 28-31)

It would have been obvious to one of ordinary skill in the art at the time of the invention to have substituted the retarder of Seto with an active retarder as taught by Chakraborty merely as an alternate means of providing a retarding braking force to the vehicle, and also to provide a retard a vehicle in which engine braking does not provide sufficient retarding force.

In re claim 11, see the abstract of Seto.

3) Claims 3-4, 5-6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seto (2002/0152015) in view of Chakraborty et al (5839534).

In re claims 3-4 and 10, Seto as modified by Chakraborty lacks the specific teaching of the value ranges claimed. It would be obvious to regulate the braking force and retarder force based upon the urgency to avoid an obstacle to avoid injury to the vehicle's occupants. Seto teaches an arrangement where it is decided what the distance to the preceding vehicle is, it is then determined if engine control can decelerate the vehicle enough to avoid a collision, if this is not the case then the friction brakes and engine is controlled in a manner to bring the vehicle to the required speed to avoid a collision and to keep a safe distance between the vehicles.

In re claims 5-6, see the abstract of Seto and element (CPU).

4) Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seto (2002/0152015) in view of Chakraborty et al (5839534) and further in view of Wieder et al (5864285).

In re claims 7-8, Seto teaches the use of what can be considered a CAN data bus, but lacks the further control device.

Wieder et al teaches the use of a number of control devices (10, 12, 24, 30a) that are connected using a CAN data bus (14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the brake control system of Seto as modified by Chakraborty et al with the controllers and data bus as taught by Wieder et al to cut down on the

amount of wiring throughout the vehicle from the various sensors to the main control unit and to cut down on the replacement costs of the single controller in case of failure.

Response to Arguments

5) Applicant's arguments filed 3/19/07 have been fully considered but they are not persuasive. Applicant states that Seto lacks the teaching of an urgency signal which is continuously variable. Please note that Seto teaches an ACC control system which can be switched from engine brake only control to engine brake control + friction brake control. Intervehicle distance, calculated time to collision, and decelerations are used to decide which braking arrangement to execute. When engine +friction braking control is needed, the amount of friction braking force needed is based on the desired intervehicle distance. An urgency signal is considered the amount, if any, friction braking needed to bring the vehicle to the desired inter-vehicle distance.

Conclusion

6) **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C. Kramer whose telephone number is 571-272-7118. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rob Siconolfi can be reached on (571)272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Devon C Kramer
Primary Examiner
Art Unit 3683

Devon
5/1/07

DK